

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-43 (cancelled)

Claim 44 (currently amended): An isolated polynucleotide comprising:

- (a) a nucleotide sequence encoding a gamma tocopherol methyltransferase having an amino acid sequence of at least 80% sequence identity, based on the Clustal method of alignment with pairwise alignment default parameters of KTUPLE=1, GAP PENALTY=3, WINDOW=5 and DIAGONALS SAVED=5, when compared to SEQ ID NO:28; or
- (b) the complement of the nucleotide sequence, wherein the complement and the nucleotide sequence have the same number of nucleotides and are 100% complementary.

Claims 45-46 (cancelled)

Claim 47 (previously presented): The polynucleotide of Claim 44, wherein the sequence identity is at least 95%.

Claim 48 (previously presented): The polynucleotide of Claim 44, wherein the amino acid sequence of the gamma tocopherol methyltransferase comprises SEQ ID NO:28.

Claim 49 (previously presented): The polynucleotide of Claim 44, wherein the polynucleotide comprises SEQ ID NO:27.

Claim 50 (previously presented): An isolated nucleic acid molecule that encodes a plant gamma tocopherol methyltransferase and remains hybridized with the isolated polynucleotide of Claim 44 under a wash condition of 0.1X SSC, 0.1% SDS, and 65°C.

Claim 51 (previously presented): A recombinant DNA construct comprising the polynucleotide of Claim 44 operably linked to at least one regulatory sequence.

Claim 52 (previously presented): The recombinant DNA construct of Claim 51, wherein the recombinant DNA construct is an expression vector.

Claim 53 (previously presented): A host cell comprising the recombinant DNA construct of Claim 51.

Claim 54 (previously presented): The cell of Claim 53, wherein the cell is selected from the group consisting of a yeast cell, a bacterial cell, an insect cell, and a plant cell.

Claim 55 (previously presented): A transgenic plant comprising the recombinant DNA construct of Claim 51.

Claim 56 (previously presented): A method for transforming a cell comprising introducing into a cell the recombinant DNA construct of Claim 51.

Claim 57 (previously presented): A method for producing a transgenic plant comprising: (a) transforming a plant cell with the recombinant DNA construct of Claim 51, and (b) regenerating a transgenic plant from the transformed plant cell.

Claim 58 (previously presented): A vector comprising the polynucleotide of Claim 44.